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I. ENTRIES

1. Agastheesa Pillai, A. & R. Thiagarajan (1979).

Central Marine Fisheries Research Institute,
Cochin-682 018.

Biology of the green turtle Chelonia mydas
(Linn.) in gulf of Manner and Palk bay.

J. mar. biol. Ass. India, 21(1&2) : 45-60.

The food item recorded was sea grasses and sea weeds. Females greatly out males in all the years. Using annual frequencies for 6 years from 1971 to 76 the models were traced. It was found that the highest weight increment, 13.64 kg, is in the 7th year of age and highest plastron width, 15.2 cm in the 2nd year.

.... 25 ref.

2. Ahmad, Ishraq (1981).

Section of Ichthyology and Fisheries, Dept.
of Zoology, Aligarh Muslim Univ., Aligarh.

Postmortem changes in the free amino acids
in the muscle of Channa striatus (Blooh)
stored at low temperature.

Intl. J. Acad., Ichthyol, 2(1) : 33-34.

Tried to find out the qualitative changes in
the free amino acids in the skeletal muscles of Channa striatus. No definite trend was found in the distribution of free amino acids.

.... 8 ref.

3. Ahmed, Sk. Md. Jamil (1986).

Freshwater river prawn in rural aquaculture.
Fishing Chimes, 5(10) : 25-29.

4. Amita & O.P. Saxena (1982).

Ichthyology Research Lab., Zoology Research Lab., M.M. College, Modinagar-201 204, India. Influence of maturation on quantity of proteins and glycogen in the muscles of Channa punctatus (Bloch)

Intl. J. Acad. Ichthyol., 3(1&2) : 29-31.

In stage I the glycogen contents are rich as compared to protein, in stage II the protein contents are more while in stage III and IV glycogen content increases while protein content decreases.

.... 16 ref.

5. Amita & O.P. Saxena (1983).

Ichthyology Research Lab., Zoology Research Laboratories, M.M. College, Modinagar-201 204, India.

Cyclic changes in protein and RNA contents in the ovary of Channa punctatus (Bloch).

Intl. J. Acad. Ichthyol., 4(1) : 39-40.

.... 3 ref.

6. Annigeri, G.G. (1979).

Central Marine Fisheries Research Inst., Cochin-682 018.

Observations on the hydrographical features of the coastal waters of north Kanara during 1956-66.

J. mar. biol. Ass. India, 21(1&2) : 128-132.

Annual temperature values showed bimodal distribution. An abrupt fall in salinity was found in the monsoon season. The pH was 8.2. The dissolved O₂ showed 2 peaks and 2 valleys. Inorganic phosphorus recorded the maximum in Sept./Oct. and the minimum in Feb./March. The nitrite distribution was random. The silicate concentration was high during June to Sept. and low in pre-monsoon period.

.... 12 ref.

7. Anon (1986)

BOBP Programme, Madras.

The best feed for shrimp.

Fishing Chimes, 5(10) : 35-38.

The study was conducted at Killai in Tamil Nadu, India. Experiments with feeds contain animal protein and vegetable protein were conducted and the result compared.

8. Babu, N.¹, Balakrishnan Nair² & N.K. Balasubramanian² (1981).

1. Dept. of Zoology, Univ. College, Trivandrum-965 001.

2. Dept. of Aquatic Biology and Fisheries, Univ. of Kerala, Trivandrum-695 007, India.

Leigth-weight relationship of Amblypharyngodon chakaiensis (Babu & Nair).

Intl. J. Acad. Ichthyol., 2(2) : 43-46.

There is difference in growth pattern between male and female. 't' test showed that males do not show a departure from isometric growth whereas females show difference.

.... 10 ref.

9. Bandyopadhyay, A.K. & B.K. Bandyopadhyay (1984).

Central Soil Salinity Research Institute, Regional Research Station, Canning Town, West Bengal.

Problems and management of coastal saline soils of West Bengal.

Fertiliser News, 29(9) : 18-22.

Specific suggestions have been made on improvement of drainage, storing of irrigation water, leaching of salts, selection of suitable crops and fertilizer management practices.

.... 5 ref.

10. Banerjee, Samir (1984).

Fishery and ecology Research Unit, Dept. of Zoology, Univ. of Calcutta, Calcutta-700 019.
Functional anatomy of cranial ligaments of Chrysochir aureus (Richardson), an Indian sciaenid fish.

Intl. J. Acad. Ichthyol., 5(1&2) : 75-82.

Anatomical organisation along with their functional role has also been analysed by deductive method. The role of ligaments in cranial kinesis of the fish was also studied.

.... 11 ref.

11. Basavaraja, N. (1985).

Dept. of Aquaculture, Univ. of Agricultural Sciences, College of Fisheries, Mangalore.

How to control sex in fishes.

Fishing Chimes, 5(9) : 63-67.

The various methods of sex control are discussed.

12. Bhatt, S.D., Yashodhara Bisht & Usha Negi (1985).

Dept. of Zoology, Kumaun Univ., Univ. Campus, Almora-263 601.

Hydrology and phytoplankton populations in river Kosi of the western Himalaya (U.P.).

Indian J. Ecol., 12(1) : 141-146.

The influence of various physico-chemical factors on the phytoplankton population is described.

.... 20 ref.

13. Bhatt, S.N., & H.R. Singh (1981).

Dept. of Zoology, Univ. of Garhwal,
Srinagar Garhwal-246 174.

Haematological studies on a hillstream fish
Schizothorax richardsonii (Gray).

Intl. J. Acad. Ichthyol., 2(1) : 13-15.

The range as well as the mean values of different parameters are given. The RBC count is quite high (1.22-4.35 million/mm³) and appears to be an adaptation for life in torrential hill streams.

.... 23 ref.

14. Bhatt, S.N.¹ & H.R. Singh² (1984).

1. Dept. of Zoology, Govt. Postgraduate
College, Gopeshwar-246 401.

2. Dept. of Zoology, Garhwal Univ. Campus,
Srinagar (Garhwal).

Effect of starvation on the blood parameters
of a hill stream fish Noemacheilus montanus.

Intl. J. Acad. Ichthyol., 5(1&2) : 145-150.

Sixty days starvation caused a definite fall in the total erythrocyte count (40.15%) total leucocyte count (81.58%) and haemoglobin concentration (25.56%) in the fish. Lymphopenia and neutrophilic leucopenia occurred. The thrombocyte number increased (69.4 ± 2.73%).

.... 12 ref.

15. Bhatt, S.N.¹ & H.R. Singh² (1985).

1. Dept. of Zoology, Govt. Post-Graduate
College, Gopeshwar, India.

2. Dept. of Zoology, Garhwal Univ., Srinagar
Garhwal-246 174, India.

Sex-related variations of some haematological
values of Three-Hill-Stream fishes.

Environ. & Ecol., 3(3) : 448-450.

Sex-related variations in hematological values of Schizothorax richardsonii, S. plagiostomus, and Pseudecheneis sulcatus were studied. The TEC, Hb and PCV values were significantly high ($P < 0.05$ - $P < 0.001$) in males of all the three species. The ESR value was insignificantly high in females than in males. The thrombocytes were more in males.

.... 10 ref.

16. Biswas, Ratna and A.L. Majumder (1985).

Biochemistry Lab., Dept. of Botany, School of Life Sciences, Visva-Bharati Univ., Santiniketan-731 235, India.

Fructose-1, 6-bisphosphatase : Part I - Purification, properties and proteolytic modification of fish liver enzyme.

Indian J. Biochem. Biophys., 22(5) : 293-299.

Homogeneous fructose-1, 6-bisphosphatase isolated from Channa punctatus resembles the mammalian liver enzyme in its indispensibility of Mg^{2+}

17. Biswas, Ratna and A.L. Majumdar (1985).

Biochemistry Lab., Dept. of Botany, School of Life Sciences, Visva-Bharati Univ., Santiniketan-731 235, India.

Fructose-1, 6-bisphosphatase : Part II - Purification and properties of the fish brain enzyme.

Indian J. Biochem. Biophys., 22(5) : 300-303.

18. Chakraborty, M. & D.P. Kushari (1985).

Ecology Lab., Dept. of Botany, Burdwan Univ., Burdwan-713 104, India.

Physico-chemical characteristics of a stream eutrophicated with urban and rural runoff in relation to productivity of Azolla pinnata.
Environ. & Ecol., 3(1) : 38-41.

Discussed about the effects of rural and urban runoff drained into a stream. Productivity of Azolla was found very high due to the enrichment.
 15 ref.

19. Chandra, K. (1985).

Central Inland Fisheries Research Institute,
 24-Pannalal Rd., Allahabad-2, U.P.
 River Pollution in India; impact on inland fisheries.

Indian J. Agric. Chem., 18(1) : 122-131.

The most important types of industries, which contribute to the deterioration of rivers comprise pulp and paper, textile, tannery, sugar, distilleries, hydrogenated vegetable oils, coal washeries, petro-chemicals etc.
 30 ref.

20. Chandra, Sudhish (1982).

Dept. of Zoology, B.S.N.V. College, Lucknow-226 001, India.

Serum cholesterol levels of 22 species of freshwater fishes.

Intl. J. Acad. Ichthyol., 3(1&2) : 13-16.

Normal serum cholesterol levels of 22 species of fishes were observed and it was found that maximal mean level (520.50 $\pm$ 154.26 mg/100 ml) was noted in Rita rita and minimal rate (155.00 $\pm$ 29.53 mg/100 ml) in Macrognaathus aculeatus.
 27 ref.

21. Chatterjee, V.C. (1984).

P.G. Dept. of Zoology, M.S. College, Saharanpur-247 001.

Effect of pollution on the edible aquatic fauna of Dhamola river at Saharanpur.

Intl. J. Acad. Ichthyol., 5(1&2) : 165-167.

.... 6 ref.

22. Chattopadhyay, D.N. & S.K. Konar (1985)

Fisheries Laboratory, Dept. of Zoology,
Kalyani Univ., Kalyani-741 235, India.
Acute and chronic effects of linear alkyl
benzene sulfonate on fish, plankton and
worm.

Environ. & Ecol., 3(2) : 258-262.

Feeding and growth rate of fish decreased significantly at 0.25, 0.38 and 1.10 mg/l of the detergent. The maturity of both the male and female exposed fish was reduced at all concentrations. The plankton Diaptomus forbesi may be used as useful biological indicator of detergent pollution.

.... 13 ref.

23. Chattopadhyay, D.N. & S.K. Konar (1985).

Fisheries Laboratory, Dept. of Zoology,
Kalyani University, Kalyani-741 235, India.
Chronic effects of anionic detergent on
aquatic ecosystem.

Environ. & Ecol., 3(1) : 82-85.

Ninety days exposure to the detergent significantly reduced primary productivity of water at 10.95 mg/l. The phytoplankton population increased at 2.23 mg/l. Zooplankton and chironomids were reduced at 4.47 mg/l.

24. Chattopadhyay, D.N. and S.K. Konar (1985).

Fisheries Laboratory, Dept. of Zoology,
Univ. of Kalyani, Kalyani-741 235.

Chronic effects of linear alkyl benzene
sulfonate on aquatic ecosystem.

Environ. Ecol., 3(3) : 428-433.

The toxicant (0.25 to 1.10 mg/l) did not influence the DO, alkalinity hardness, pH and phosphate of soil and water.

25. Chaturvedi, L.D.¹, B.S. Malik¹ & B.D. Joshi² (1981).

1. P.G. Dept. of Zoology, Hindu College, Moradabad, 244 001.

On some biochemical components of liver of Clarias batrachus (Linn.)

Intl. J. Acad. Ichthyol., 2(1) : 23-24.

The results show wide ranging intra specific differences in glycogen, protein, cholesterol, RNA, DNA, acid and alkaline phosphatase contents. The liver is quite rich in most of the constituents.

... 21 ref.

26. Cheema, G.¹, K. Kaur² & H.S. Vasisht (1986).

1. Dept. of Zoology, Punjab Univ., Chandigarh.

2. Dept. of Zoology, Punjab Agricultural Univ., Ludhiana.

Effect of certain pesticides on the larvae of the common carp Cyprinus carpio L.

Pb. Fish. Bull., 10(1) : 10-11.

27. Dabral, R. & L.D. Chaturvedi (1983).

Fisheries Research Lab., Dept. of Zoology, Hindu College, Moradabad-244 001.

On some blood parameters of three species of hill stream fishes.

Ad. Bios., 2(1) : 97-100.

A comparative study of the haematological parameters was conducted on Crossocheilus latius, Schizothorax progastus and S. Plagiostomus.

... 11 ref.

28. Dasgupta, Mrinal & S.A. K. Nasar (1982).

Dept. of Zoology, School of Life Sciences,
North Eastern Hill Univ., Shillong-793 014.
Note on an abnormal specimen of the Indian
carp, Labeo gonius (Ham.)

Intl. J. Acad. Ichthyol., 3(1&2) : 23-24.

... 4 ref.

29. Datta, N.C., B.K. Bandyopadhyay & S.S. Barman (1984).

Fishery and Ecology Research Unit, Dept. of
Zoology, Univ. of Calcutta, Calcutta-700 019.
On the food of an euryhaline perch Scato-
phagus argus (Cuv. and Val.) and the scope
of its culture in freshwater.

Intl. J. Acad. Ichthyol., 5(1&2) : 121-124.

The food of Scatophagus argus comprises
aquatic macrophytes, phytoplankton, zooplankton and
other macrobenthos. It is a culturable fish. Some
hydrological parameters of both fresh and brackish-
water habitat have been studied, in order to find
out its habitat requirement.

... 15 ref.

30. Datta, N.C. & I.S. Laishram (1984).

Dept. of Zoology, Fishery and ecology Res.
Unit, Calcutta Univ., Calcutta-700 019.
Zoogeographical significance of the ichthyo-
fauna of Manipur, India.

Intl. J. Acad. Ichthyol., 5(1&2) : 83-95.

The fish fauna comprises a mixture of those
of the Himalayan foothills and those of Burma. The
study covered 123 species under 63 genera belonging to
25 families. This report deals with the affinity of
the ichthyofauna with those of the other regions of
India.

... 22 ref.

31. Datta, N.C., N. Mandal & B.K. Bandyopadhyay (1984).
 Fishery and Ecology Res. Unit., Dept. of
 Zoology, Univ. of Calcutta, Calcutta-700019.
 Seasonal variations of primary productivity
 in relation to some physicochemical proper-
 ties of a freshwater pond, Calcutta.
Intl. J. Acad. Ichthyol., 5(1&2) : 113-120.
 Both gross and net primary productivity
 showed a bimodal pattern. Gross productivity value is
 positively correlated with temperature, pH, total
 alkalinity, DO, nitrate nitrogen and silicate content.
 Transparency and free carbondioxide showed a negative
 correlation. The net gross ratio varied from 0.6-0.92.
 ... 32 ref.
32. Datta, N.C. & P.K. Roy (1984).
 Fishery and Ecology Res. Unit, Dept. of
 Zoology, Univ. of Calcutta, Calcutta-700 019.
 Urinogenital system of the exotic cichlid,
Sarotherodon mossambica (Peters).
Intl. J. Acad. Ichthyol., 5(1&2) : 49-54.
 ... 15 ref.
33. Desai, V.R.¹, N.P. Shrivastava¹ & D.N. Misra²(1981).
 1. Co-ordinated Res. Project on Reservoir
 Fisheries, C.I.F.R.I., Rihand Dam, P.O.
 Turra, Dist., Mirzapur, U.P.
 2. Co-ordinated Project on Composite Culture,
 C.I.F.R.I., Gujartal Fish Farm, P.O. Khudaoli,
 Dist. Jaunpur, U.P.
 Breeding success of major carps in Rihand
 Reservoir (U.P.).
Intl. J. Acad. Ichthyol., 2(1) : 5-11.
 The breeding of major carps in Rihand
 reservoir was observed for 5 years (1973-77). The
 breeding depended mainly on monsoon inflow. It is
 recommended that Rihand reservoir be stocked with
 mrigal, rohu, and calbasu intensively.
 ... 15 ref.

34. Deshmukh, R.S. (1979).

Dept. of Zoology, Marathwada Univ.,
Aurangabad.

On the oxygen consumption of the estuarine mollusc Meretrix meretrix under various conditions.

J. mar. biol. Ass. India, 21(1&2) : 1-9.

The O₂ consumption was studied in relation to temperature, body size, O₂ content of water, low salinity, starvation and low tide. The rate of O₂ consumption increased with the rise in temperature from 21.0°C to 35.0°C. The respiratory rate was found to be inversely related to the body size when calculated on the basis of weight. There was decrease in the rate with the decrease in salinity between 34.4‰ and 24‰ and an increase in the rate with further decrease in salinities from 24.0‰ to 17.2‰. O₂ consumption was less during starvation.

... 26 ref.

35. Devadoss, P. (1979).

Central Marine Fisheries Res. Inst.,
Cochin-682 018.

Observations on the maturity, breeding and development of Scoliodon laticaudus Muller & Henle off Calicut coast.

J. mar. biol. Ass. India, 21(1&2) : 103-110.

In this species both right and left ovaries are functional. The embryos develop early contact with the mother by means of yolk sac placenta for nutrition. Separate compartments are provided for each developing embryo in waters. As many as 20 embryos; 10 in each uterus are recorded. At the size of 14 cm it is ready for parturition. Males mature at 30.1-35.0 cm and females at 35.1-40.0 cm size.

... 14 ref.

36. Dinesh, K.R., T.J. Varghese & M.C. Nandeesha (1985).
 Univ. of Agricultural Sciences, College of Fisheries, Mangalore-575 002, India.
 Chemical characteristics of water in fish ponds treated with poultry manure and urea. Environ. & Ecol., 3(1) : 29-37.
 The effect of 3 different doses of urea (100,300 and 500 kg/ha) in combination with 2,000 kg/ha of poultry manure, on the quality of water was studied for 133 days. Hundred kg per ha of urea was found sufficient and safe for pond fertilization.
 ... 35 ref.
37. Dubey, J.N., V.M.S. Sriwastwa & R. Kumar (1982).
 Dept. of Zoology, K.N. Govt. Post-Graduate College, Gyampur-221304, India.
 Pineal organ of Mystus gor (Ham.) with special reference to histochemical nature of luminar sensory cells.
Intl. J. Acad. Ichthyol., 3(1&2) : 25-28.
 ... 24 ref.
38. Duggal, C.L. & Harlean Bedi (1986).
 Dept. of Zoology, Punjab Univ., Chandigarh, India.
 On two trematode parasites infecting freshwater fishes of Punjab.
Pb. Fish. Bull., 10(1) : 21-24.
 Taxonomic studies of two digenetic trematodes namely Phyllodistomum srivastavai Rai 1964 and Isoparorchis trisimilitubis Southwell 1913 have been conducted.

39. Duggal, C.L. & Harpreet Kaur (1986).

Dept. of Zoology, Punjab Univ., Chandigarh, India.

On some spirurid nematodes infecting freshwater fishes of Punjab.

Pb. Fish. Bull., 10(1) : 34-35.

Taxonomic studies have been conducted on the nematodes. Intraspecific variations have been noted in them and have been compared in tubular forms. One new host and three new localities have been reported.

... 15 ref.

40. Duggal, C.L. & Harpreet Kaur (1986).

Dept. of Zoology, Punjab Univ., Chandigarh, India.

On two acanthocephalan parasites infecting freshwater fishes of Punjab.

Pb. Fish. Bull., 10(1) : 54-62.

The taxonomic studies of two quadrigyrid acanthocephalans have been conducted. They are reported for the first time from Punjab.

... 11 ref.

41. Gajbhiye, S.N.¹, Vijayalakshmi R. Nair¹, P.V. Narvekar² & B.N. Desai² (1985).

1. National Inst. of Oceanography, Regional Centre, Versova, Bombay-400 061.

2. National Inst. of Oceanography, Dona-Paula, Goa-403 004.

Concentration and toxicity of some metals in zooplankton from nearshore waters of Bombay.

Indian J. Mar. Sci., 14(4) : 181-183.

Concentrations of Ca, Mn and Ni were more in copepods and gelatinous organisms than in mysids and decapods. Concentrations of Cu and Mn were more in zooplankton obtained from offshore area. Cd was constant in samples collected from all stations.

... 15 ref.

42. Ghosh, T.K. & S.K. Chatterjee (1985).

Inst. of Science Education, Burdwan Univ.,
Burdwan-713 104, India.

Effect of chromium on tissue energy reserve
in a freshwater fish Sarotherodon mossam-
bicus.

Environ. & Ecol., 3(2) : 178-179.

Exposure to 5, 10 and 25 ppm of Potassium
dichromate for 15 days decreased the glycogen levels
in liver and muscle of S. mossambica. Chromium was
responsible for cellular disorganisation.

... 9 ref.

43. Girija, Moses & K. Jayantha^{Rao} (1985).

Dept. of Zoology, Sri Venkateswara Univ.,
Tirupati-517 502, India.

Histopathological changes induced by hepta-
chlor in gills of a freshwater fish Tilapia
mossambica.

Environ. & Ecol., 3(1) : 74-75.

Exposure for 2, 4 and 6 days to sublethal
concentration. (0.03 mg/l) of heptachlor resulted in
bulging of tips of primary and secondary gill fila-
ments, necrosis in the secondary gill lamellae.

... 9 ref.

44. Goswami, S.C. (1985).

National Inst. of Oceanography, Dona Paula,
Goa-403 004.

Zooplankton standing stock and composition
in coastal waters of Goa, West coast of
India.

Indian J. Mar. Sci., 14(4) : 177-180.

Standing stock values ranged from 22.81
to 53.65 mgC m⁻³. Zooplankton community was diverse
and no single group ever dominated. Copepod species
diversity values were higher at stations with lesser
estuarine influence.

... 15 ref.

45. Govt. of West Bengal, Fisheries Department & Govt. of India, Ministry of Agriculture.

Second National Fish Seed Congress,
Calcutta, July 3-4, 1986. 135 p.

46. Gupta, D.K. & Neelima Gupta (1980).

Dept. of Zoology, Bareilly College, Bareilly.
Biochemical studies of gonad in relation to
length weight of Clarias batrachus (Linn.)
Intl. J. Acad. Ichthyol., 1(1) : 45-46.

... 14 ref.

47. Gupta, S.K.¹ & S.P. Grover² (1984)

1. Dept. of Zoology, Pt. J.N. College,
Banda.

2. Dept. of Zoology, D.A.V. (P.G.) College,
Dehra Dun.

On the fish fauna of Banda District-II.
Some new records with notes on their eco-
morphology.

Intl. J. Acad. Ichthyol., 5(1&2) : 67-74.

The present communication briefs the earlier records of fishes from Banda Dt. with a discussion on the probable causes of absence of 8 formerly recorded fish spp. from the present collection. Certain corrections were done in the earlier list. In addition, 5 species have been described with notes on their ecology and remarks on the variations noticed in some morphometric features.

... 24 ref.

48. Hosetti, B.B. & H.S. Patil (1986).

Water Pollution Research Laboratory, Dept. of Zoology, Karnataka Univ., Dharwad-580 003 (India).

Treatment of dairy animal waste with Nostoc punctiforme.

J. Environ. Biol., 7(1) : 11-15.

Nostoc punctiforme was cultured in different concentrations of animal waste (25%, 50% and 75%). The optimum condition was found at the dilution of 50%.

... 13 ref.

49. Hota, Ashok Balram Nanda & Anjana Naik (1982).

Dept. of Zoology, G.M. College, Sambalpur-768 004, India.

The space factor in the growth of carp fries. Intl. J. Acad. Ichthyol., 3(1&2) : 37-40.

The size of the culture medium has significant positive effect on the growth rate of fries.

... 10 ref.

50. Janakiram, B., Y. Venkateswarlu, G. Rajarami Reddy & K. Sisira Babu (1985).

Dept. of Marine Zoology, S.V. Univ., P.G. Centre, Kavali-524 202.

Oxygen uptake rhythm in penaeid prawn Penaeus indicus (H. Milne Edwards) in different salinities.

Indian J. Mar. Sci., 14(4) : 222-223.

Oxygen uptake was studied in brackishwater P. indicus at 1 h interval during 24 h (12L:12D) solar day in 30, 25, 20, 15, and 10×10^{-3} salinities. Prawns exposed to 20×10^{-3} salinities exhibited oxygen uptake rhythm with peak and nadir (trough) values at 1800 hrs. and 0500 hrs. respectively.

... 9 ref.

51. *Jana, Sasadhar, Shyam S. Saha, M.A. Choudhuri & D.K. Choudhuri (1985).

Deptt. of Botany, Univ. of Burdwan, Burdwan-713 104, India.

*Dept. of Zoology, Univ. of Burdwan, Burdwan-713 104, India.

Effects of mercury on inorganic phosphorus and activities of acid and alkaline pyrophosphatases in freshwater fish Clarias batrachus.

Environ. & Ecol., 3(2) : 167-170.

After 14 days of incubation there was an increased inorganic phosphorus content acid pyrophosphatase activity and ratio of acid to alkaline pyrophosphatase activity and a decreased alkaline pyrophosphatase activity in the muscle, liver, kidney, stomach intestine, testis and ovary over control values of the fish.

... 12 ref.

52. Jayantha Rao, K., Ramamurthi, K. & V.S.R. Murthy (1984)

Dept. of Zoology, Sri Venkateswara Univ., Tirupati-517 502.

Sublethal chronic effects of phosphamidon on functionally active tissue the gill of a freshwater edible fish, Tilapia mossambica. Intl. J. Acad. Ichthyol., 5(1&2) : 23-26.

On exposure to sublethal (2 ppm, concentration of phosphamidon for 7 to 15 days, the gills of T. mossambica showed irreparable architectural changes

... 8 ref.

53. Jayasree V., Solimali & S.Y. Kamat (1985).

National Inst. of Oceanography, Dona Paula, Goa-403 004.

Distribution of tocopherol (Vitamin E) in marine algae from Goa, West coast of India. Indian J. Mar. Sci., 14(4) : 228-229.

Tocopherol content has been estimated in 17 marine algal species belonging to Chlorophyceae; phaeophyceae and Rhodophyceae following the dipyridyl-FeCl₃ method after alkaline saponification.

... 7 ref.

54. Johal, M.S. (1986).

P.G. Dept. of Zoology, S.G.N. Khalsa College, Srigananagar.

Aquatic weeds.

Pb. Fish Bull., 10(1) : 25-33.

Discussed about aquatic weeds and their control measures.

... 29 ref.

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College of Fisheries, Univ. of Agricultural Sciences, Mangalore-575 002.

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Intl. J. Acad. Ichthyol., 3(1&2) : 1-5.

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Environ. & Ecol., 3(3) : 345-347.
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to the diurnal changes. No marked fluctuations were
observed in temperature, transparency, pH, alkalinity
and DO.

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pancalus (Ham.) : histochemical and bioche-
mical observations.

Proc. Indian Natn. Sci. Acad., 51(3) : 319-325.

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Indian J. Mar. Sci., 14(4) : 220-221.

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Intl. J. Acad. Ichthyol., 1(1) : 13-17.

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Intl. J. Acad. Ichthyol., 5(1&2) : 27-32.

In normal/control specimens neutral and acid mucopolysaccharides (MPS) sulphated and sialic acid rich mucopolysaccharides have been localised. In treated specimens the neutral MPS decreased while acid MPS did not show any change. The histochemical response to different doses of the two pesticides at all exposures has been similar.

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Intl. J. Acad. Ichthyol., 4(1) : 15-20.

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Intl. Acad. Ichthyol., 4(1) : 9-13.

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Environ. & Ecol., 3(3) : 335-338.

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consumption from 3-12 hrs and after that gradual
decrease upto 72 hrs were noticed in the fish exposed
to 2 ppm of dichlorvos. Succinate dehydrogenase and
malate dehydrogenase enzyme activities were also
followed similar trend as observed in oxygen consump-
tion from 3 to 72 hrs. Generally the pesticide
decreased oxidative metabolism in the fish.

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Environ. & Ecol., 3(1) : 58-64.

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Environ. & Ecol., 3(2) : 198-201.

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deaminase and xanthine dehydrogenase in the
tissues of Freshwater fish Tilapia mossam-
bica exposed to Lindane.

Environ. & Ecol., 3(3) : 320-323.

The fish was exposed to 0.05 and 0.15 ppm
lindane for 12-48 hrs. Lindane increased the activi-
ties of AMP-deaminase and adenosine deaminase enzymes.
Increment was maximum at 48 hrs of exposure. Both
adenosine deaminase and xanthine dehydrogenase acti-
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tissue.

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J. mar. biol. Ass. India, 21(1&2) : 174-178.

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Environ. & Ecol., 3(2) : 293-295.

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Agricultural Wastes, 13(4) : 305-313.

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Ad. Bios., 2(1) : 47-52.

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Gulbarga Univ., Gulbarga-585 106.
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and excretory pattern of a freshwater
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Environ. & Ecol., 3(3) : 327-331.

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Chronic effects of the organophosphorus
insecticide DDVP on feeding survival,
growth and reproduction of fish.
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growth and conservation in the fish
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LC₅₀ was 22.5 ppt at 96 hrs. ... 18 ref.

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Centre for Life Sciences, North Bengal Univ.-734 430, Darjeeling, India.
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Environ. & Ecol., 3(2) : 222-226.

Described the mating activities of the fish and the behaviour of females and males during breeding season. The fecundity was recorded as 500-1000. The eggs were released in batches.

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Intl. J. Acad. Ichthyol., 5(1&2) : 125-129.

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 The present communication provides infor-
 mation on distribution, availability, abundance,
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Intl. J. Acad. Ichthyol., 4(1) : 7-8.

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significant accumulation of neurosecretory material
in cells of nucleus preopticus and reduction in dia-
meter of nuclei of their neuronal cell bodies.

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1985, 99 p :

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needs and to discuss steps to be taken to plan for
future research and developmental programmes.

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Univ. of Kerala, Trivandrum-7, India.
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Intl. J. Acad. Ichthyol., 3(1&2) : 33-35.

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larval fecundity (fertility) compared to fertilized
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in fish pond with ammonia.
Environ. & Ecol., 3(3) : 378-382.

The weeds could be controlled by ammonia
at 4-5 ppm.

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Arts College Cheyyar-604 407.
Factors influencing blood sugar in fishes
Tilapia mossambica and Mystus gulio.
Environ. & Ecol., 3(3) : 362-365.

Blood sugar concentration was determined in
relation to sex, weight, times of day, starvation
and habitat. No significant difference was found
between the sexes in T. mossambica but females of M.
gulio showed higher values. Times of day and star-
vation influenced the blood sugar concentration in
both the species.

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Mercuric chloride, cythion and ammonium sulfate induced changes in the brain, liver and ovarian alkaline phosphatase content in the fish Channa punctatus.
Environ. & Ecol., 3(2) : 263-268.

The fish was exposed to 0.2 ppm of mercuric chloride, 4.0 ppm of cythion and 500 ppm of ammonium sulfate for 15 to 30 days. After 15 days reduction in brain, liver and ovarian alkaline phosphatase content was recorded. In the ammonium sulfate group it was insignificant in the ovary and in cythion group it was insignificant in the liver. The toxic effect of cythion was less pronounced and that of ammonium sulfate was more intense.

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Cochin-682 018.

Hydrography of the waters along the Gujarat coast during the summer period of the year 1963.

J. mar. biol. Ass. India, 21(1&2) : 133-142.

During this period the waters were mostly isothermal within the continental shelf and a thermocline was seen outside the shelf. A southward increase in temperature was associated with a southward decrease in salinity. The sinking and spreading of high saline waters from the Gulf of Aden and Persian Gulf were perceptible in this area.

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Fishing Chimes, 5(8) : 50-52.

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Dept. of Zoology, D.A.V. College, Koraput-764 020, India.

Effects of lindane on ATP-ase activity in juveniles of Mugil cephalus.

J. Environ. Biol., 7(1) : 23-33.

Lethal concentration of lindane (96 h LC₅₀, 0.074 ppm, 1 toxic unit) increased Mg⁺⁺ and Na⁺ K⁺ ATPase specific activity in brain and gill filaments of juveniles of Mugil cephalus.

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Molecular Physiology Division, Dept. of Zoology, Sri Venkateswara Univ., Tirupati-517 502, India.

In vitro inhibitory effects of dieldrin and methyl parathion on succinate dehydrogenase activity in fish Tilapia mossambica.
Environ. & Ecol., 3(1) : 76-78.

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Molecular Physiology Division, Dept. of Zoology, Sri Venkateswara Univ., Tirupati-517 502.

In vitro inhibitory effects of ammonium salts on glutamate dehydrogenase levels in the fish Tilapia mossambica. Environ. & Ecol., 3(1) : 79-81.

The results showed tissue specific action of ammonium salts on glutamate dehydrogenase activity.
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Dept. of Marine Zoology, S.V. Univ., PG Centre, Kavali-524 202, A.P., India. Toxicity of phosphamidon to palaemonid shrimp.

Environ. & Ecol., 3(2) : 278-279.

2 to 10 day LC₅₀ values of phosphamidon for the shrimp ranged from 0.859 to 1.849 ppm in static tests and from 0.464 to 1.714 ppm in continuous flow tests. Shrimps were more sensitive to the insecticide than other aquatic life.

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Dept. of Marine Zoology, S.V. Univ., PG Centre, Kavali-524 202.

Toxicity of insecticide phosphamidon on tissue carbohydrate catabolism of penaeid prawn Penaeus indicus (H. Milne Edwards). Indian J. Mar. Sci., 14(4) : 224-225.

Carbohydrate, glycogen, lactate, dehydrogenase and succinate dehydrogenase levels decreased in phosphamidon exposed prawns.

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Dept. of Marine Zoology, S.V. Univ.,
PG. Centre, Kavali-524 202.

Alterations in the glycolytic pathway
of penaeid prawn Penaeus indicus exposed
to the pesticide phosphamidon.

Environ. & Ecol., 3(3) : 342-344.

The prawns exposed to sublethal levels
of phosphamidon (0.3 ppm) for 72 hrs showed signi-
ficant increase in aldolase activity but LDH acti-
vity was decreased. The levels of pyruvic acid
also showed marked decrement and in consequence,
lactic acid levels elevated markedly. This resul-
ted in lactic acid accumulation in tissues.

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Dept. of Botany, Osmania Univ., Hyderabad-
500 007.

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effluents and their impact on the river
Tungabhadra : heavy metals and algae.

Proc. Indian Acad. Sci. (Plant Sci.),
95(3) : 139-146.

The concentrations of various metals
analysed are in the order of $Zn > Cu > Pb > Ni > Co > Mn$. In general these metals showed an increase
in their concentration along with the increase
in the concentration of chlorides, total hardness,
sulphates, and total alkalinity. Blue-greens and
diatoms are more tolerant to these ions than
chlorophyceae.

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Central Marine Fisheries Research
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On ichthyoplankton of the Cochin back-
water during spring tides.

J. mar. biol. Ass. India, 21(1&2) : 111-118.

Recorded the various ichthyofauna present
in Cochin backwaters. The seasonal fluctuation of
fish larvae, and other associated plankters in re-
lation to the environmental parameters like salinity,
temperature, and rainfall are discussed.

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Inst. of General and Special Zoology, Univ.
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The value of a modified method of spalte-
holz for the examination of bones in fish.

Intl. J. Acad. Ichthyol., 2(2) : 37-41.

This method makes possible to distinguish
clearly single bones and bone sutures in fish.

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Dept. of Zoology, Kurukshetra Univ,
Kurukshetra-132 119, India.

Chromosomal studies on four cyprinid fishes.

Intl. J. Acad. Ichthyol., 2(1) : 1-4.

It is found that the Cyprinids namely
Cirrhinus mrigala and C. reba possess similar karyo-
types comprising 4 pairs (3 in C. reba) of small
metacentrics, 3 pairs (4 in C. reba) of submetacen-
trics, 7 pairs of subtelocentrics and 11 pairs of
acrocentric chromosomes. Labeo cerulaeus possesses
a karyotype composed of 6 pairs of small metacentrics,
3 pairs of submetacentrics, 3 pairs of subtelocen-

trices and 12 pairs of acrocentric elements. The karyotype of Puntius sarana consists of 6 pairs of medium sized metacentrics, 7 pairs of submetacentrics, 6 pairs of subtelocentrics and 6 pairs of acrocentric chromosomes. P. sarana thus shows a closer cytological similarity with Labeo sp. than with other Puntius sp.

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Dept. of Zoology, Kurukshetra Univ.,
Kurukshetra-132 119.

On the fecundity of Mystus tengara (Ham.).
Intl. J. Acad. Ichthyol., 3(1&2) : 17-19.

The gross fecundity ranges from 5,500 to 13,000 and it increases with the increase in length and weight.

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Dept. of Zoology, Kurukshetra Univ.,
Kurukshetra-132 119.

Seasonal gonado-somatic index, histological and cholesterol changes in the testes of the catfish, Heteropneustes fossilis and the effect of exogenous hormones/releasing hormones on the cholesterol content during pre-breeding season.

Intl. J. Acad. Ichthyol., 5(1&2) : 95-101.

The action of gonado-tropins on steroidogenesis is studied by determining the testicular cholesterol levels in the intact catfish, H. fossilis. Exogenous administration of mammalian gonado-tropins/releasing hormones (FSH, LH, LH-FSH-RH and HCG) during pre-breeding period resulted insignificant decrease in cholesterol level suggesting increased androgen and steroid hormone production.

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Dept. of Zoology, Kurukshetra Univ.,
Kurikshetra-132 119.

Karyotypes of three forms of fishes
having high chromosome number.

Intl. J. Acad. Ichthyol., 5(1&2) : 139-144.

Karyotypic analysis of 3 fishes namely
Botia dario, B. hymenophysa and Channa stewartii
has been carried out. The polyploid origin of these
three forms and the role of polyploidy in the
karyotypic evolution of fishes has been polyploidi-
zation can be successful in fishes has also been
discussed.

/ discussed. How far ... 36 ref.
experimental

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Dept. of Zoology, Aligarh Muslim Univ.,
Aligarh-202 001.

The anatomy of the olfactory organs in the
freshwater fish Mystus vittatus (Bloch).

Intl. J. Acad. Ichthyol., 5(1&2) : 43-48.

The elongated rosette of the fish belongs
to Bateson's (1889) rosette type 2 and Brunos (1909)
rosette column II. The circulation of water in the
olfactory chamber is brought about by the activity
of cilia present on the tubular anterior opening and
the olfactory epithelium, hence the fish falls under
isosmate group of Doving et al. (1977).

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Dept. of Zoology, Dr. H.J. Gour Vishwa
Vidyalaya, Sagar-470 003.

The pineal complex in the freshwater
teleost Ambassis ranga ranga (Cuv. & Val.).

Intl. J. Acad. Ichthyol., 5(1&2) : 55-59.

The entire organ is a hollow vascularised structure; divided into 3 parts. Cranial roof over the pineal organ is translucent. The functional relationship of the pineal stalk, dorsal sac and pineal vesicle has been recorded.

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Post-Graduate Dept. of Botany, Bhagalpur-Univ., Bhagalpur-812 007.

Changes in the properties of two fresh-water ponds in relation to ecological factors.

Indian J. Ecol., 12(1) : 147-150.

Changes in bottom soil pH, total nitrogen, phosphate, organic carbon, and CaCO_3 of two ponds in relation to environmental factors are studied. Marked correlations were observed between soil factors and hydrological conditions.

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Fisheries Laboratory, Dept. of Zoology, Kalyani Univ., Kalyani-741 235.

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Environ. & Ecol., 3(1) : 17-20.

Chronic exposure of petroleum refinery effluent reduced primary productivity and chironomid larvae at 2.10 and 5.84% concentrations. Zooplankton number also was reduced by 5.84% effluent.

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Dept. of Zoology, Ranchi College, Ranchi Univ., Ranchi-834 008.

On Metaclinostomum thaparus sp. nov. from the live of Channa punctatus at Ranchi.
Intl. J. Acad. Ichthyol., 5(1&2) : 183-185.

... 2 ref.

128. Saksena, D.N. & A.K. Raizada²(1984).

1. School of Studies in Zoology, Jiwaji Univ., Gwalior-474 011.

2. Dept. of Zoology, Dr. H.S. Gour Vishwavidyalaya, Sagar.

On the corpora atretica and post-ovulatory follicles and spawning periodicity in some freshwater Indian teleosts.

Intl. J. Acad. Ichthyol., 5(1&2) : 11-22.

Number of corpora artetica and their appearance along with relative number of post-ovulatory follicles in the ovary of fish determines precisely the spawning period and periodicity in the fishes.

... 56 ref.

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Dept. of Botany, G.K. Vishwavidyalaya, Hardwar-249 404.

Characteristics of water of Keetham lake.
Environ. & Ecol., 3(3) : 386-389.

The analysis of water revealed higher values of total hardness, BOD and organic nitrogen indicating organic pollution.

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Departamento de Oceanografia e Linlogia
Universidade Federal do Rio Grande do
Norte, Natal RN-59000, Brazil.

On diurnal variations of zooplankton in a
tidal estuary.

J. mar. biol. Ass. India, 21(1&2) : 187-190.

Copepods, appendicularians and cirriped nauplii formed the major component of zooplankton during low tide particularly at night. Zoeae of *Brachyura* also formed a major item during low tide but both at day and night. Chaetognaths were found during high tides.

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Dept. of Zoology, Osmania Univ., Hyderabad-500 007.

Olfactory organs and their sexual dimorphism in the electric ray, *Narcine timlei* (Day).
Intl. J. Acad. Ichthyol., 4(1) : 25-28.

In male fish the olfactory organ is almost rounded kidney shaped and in female it is slightly elongated narrow kidney-shaped.

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Dept. of Zoology, Osmania Univ., Hyderabad-500 007.

Plankton and biota survey of local ponds of Port Blair, Andaman islands, India.

Intl. J. Acad. Ichthyol., 4(1) : 23-24.

... 3 ref.

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1. Dept. of Zoology, Osmania Univ.,
Hyderabad-500 007.

2. Professor, Dept. of Life Sciences,
Meerut Univ., Meerut (U.P.)

Evolutionary trends in the morphology of
olfactory organs of some marine fishes.
Intl. J. Acad. Ichthyol., 5(1&2) : 37-41.

About 22 fishes were studied. The olfactory organs showed variations in shape of olfactory rosettes and raphe. About 9 varieties were observed from the simple structure of Heteropneustes georgii to the highly complicated are found in Scoliodon sorrakowah.

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Dept. of Zoology, R.B.C. College, Naihati-
743 165.

A species of Unicapsula davis 1924 (Myxozoa) infecting a fish of the southern coast of India.

Intl. J. Acad. Ichthyol., 5(1&2) : 187-189.

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KVK & TTC of CIFRI (ICAR), Kausalyaganj,
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Preliminary observations on the possibility of adopting the simplified techniques of induced fish breeding in rural Orissa - a case study.

Intl. J. Acad. Ichthyol., 5(1&2) : 177-180.

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Dept. of Zoology, Kalyani Univ., Kalyani-741 235.

Effects of ammonium sulphate on the behaviour, survival feeding, growth and reproduction of fish.

Environ. & Ecol., 3(3) : 312-316.

Tests run in laboratory glass aquaria (30 ± 1.1 C), outdoor vats (32 ± 1.2 C) and cement tanks (30 ± 1.2 C) indicated that feeding rates of T. mossambica exposed to ammonium sulfate were reduced ($P < 0.05$). To increase survival and growth 20 to 80 kg/ha of N as ammonium sulfate was recommended. Ammonium sulfate enhanced the egg producing capacity of the fish.

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Fisheries Laboratory, Dept. of Zoology, Kalyani Univ., Kalyani-741 235, India.

Influence of urea on the feeding, survival, growth and reproduction of fish.

Environ. & Ecol., 3(2) : 162-166.

Feeding rates of fish Tilapia mossambica exposed to 47, 64, 94, 141, 188 and 376 ppm of urea were significantly reduced ($P < 0.05$). For high survival, growth and reproduction application rate of nitrogen (obtained from urea) could be reduced from 160 to 80 kg/ha N or even to 40 kg/ha N when used singularly.

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 Corporation Bank, Aukola-581 314,
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 Shelf life of cuttle fish (Sepia aculeata)
 stored in ice.
Indian J. Anim. Sci., 56(1) : 47-50.
 Shelf life of cuttle fish stored in ice was
 determined by chemical, microbial and sensory evalua-
 tion. Iced cuttle fish can be stored in an accepta-
 ble condition up to 7 days after which TMA, VBN and
 bacterial counts increased rapidly. Sensory evalua-
 tion indicated that the product was rated as good
 for 3 days and acceptable up to 7.4 days.
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 Dept. of Zoology, Univ. of Jodhpur,
 Jodhpur-342 001.
 Commercial fishes, their sale and some
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 market of Jodhpur (Rajasthan, India).
Intl. J. Acad. Ichthyol., 5(1&2) : 181-182.
 The paper deals with the consumer response
 in the fish market and the economic aspects of the
 dealing.
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 Ichthyology Research Lab. Zoology Research
 Laboratories, M.M. College, Modinagar-
 201 204, India.
 Morphological study of brain of Heteropneus-
tes fossilis, Notopterus notopterus and
Channa punctatus in relation to their fee-
 ding habits.
Intl. J. Acad. Ichthyol., 2(1) : 17-22.
H. fossilis feeds largely by smell and
 taste and is a carnivorous bottom feeder. N.
notopterus feeds by smell and sight and is a car-
 nivorous mid feeder while C. punctatus feeds mainly
 by sight and is a carnivorous surface feeder.
 ... 14 ref.

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 Ichthyology Research Laboratory, Zoology
 Research Laboratory, M.M. College, Modi-
 nagar-201 204, India.
 Cadmium induced tumors in liver and
 kidney of Channa punctatus (Bl.)
Intl. J. Acad. Ichthyol., 2(2) : 55-59.
 ... 19 ref.
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 Research Laboratories, M.M. College,
 Modinagar-201 204, India.
 Toxicity of lead to Channa punctatus (Bl.)
Intl. J. Acad. Ichthyol., 2(1) : 35-36.
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 Research Lab., M.M. College, Modinagar-
 201 204, India.
 Olfactory epithelium of the fish Colisa
fasciata.
Intl. J. Acad. Ichthyol., 1(1) : 7-12.
 The olfactory cavities communicate with
 the exterior through anterior and posterior nares.
 The olfactory lamellae are lined with olfactory
 epithelium. The epithelium is pseudostratified
 and consists of primary neurons; secondary neurons,
 supporting cells, basal cells, goblet cells and a
 few muciparous cells.
 ... 14 ref.
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 (1984)
 Zoology Research Laboratories, D.A.V.
 College, Dehra Dun-248 001.
 Histopathological studies of the Xenon-
todon cancila (Ham.) infected with
Bucephalopsis belonea.
Intl. J. Acad. Ichthyol., 5(1&2) : 191-193.
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- ∠ intestine of

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 Dept. of Limnology and Fisheries,
 Sukhadia Univ., Udaipur-313 001.
 Evaluation of organic and inorganic
 fertilizers in relation to zooplankton
 production.
Intl. J. Acad. Ichthyol., 5(1&2) : 155-158.
 The results of fertilization conducted in
 cement cisterns with sheep dung and ammonium sulphate
 for a period of 28 days have been discussed in rela-
 tion to zooplankton production. The application of
 sheep dung is recommended as it maintains proper
 ecosystem, produces more fish food organisms besides
 being economical.
 ... 9 ref.
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 Dept. of Zoology, Kurukshetra Univ.,
 Kurukshetra-132 119.
 Some histological aspects of the olfactory
 bulb in the fish Heteropneustes fossilis
 (Bloch).
Intl. J. Acad. Ichthyol., 5(1&2) : 173-175.
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 M.P.E.D.A., Cochin-682 016.
 Sea food delicacies in Japan.
Fishing Chimes, 5(8) : 69-70.
 Discussed about the seafood delicacies of
 Japan like sea urchin, sea cucumber, clams, jelly
 fish, ligamens etc.

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Tribhuvan Univ., Kirtipur Campus,
Kathmandu, Nepal.

Rhythm of oocyte maturation and reproductive cycling in a female stone loach (Noemacheilus beavani (Gunther)).

Intl. J. Acad. Ichthyol., 1(1) : 19-29.

The ovarian cycle of N. beavani can be divided into seven distinct phases. The oocyte growth has been divided into nine stages. The spawning is intermittent and ovary exhibits asynchronism.

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Dept. of Zoology, Holkar Science College,
Indore-452 001.

Effects of effluents from a textile mill on the kidney of a freshwater teleost Saccobranchus fossilis.

Intl. J. Acad. Ichthyol., 5(1&2) : 33-36.

Kidneys of the fish exhibited ruptures of renal epithelium, flattening of epithelium cells, dilatation of tubule lumen, rupture of tubules, necrosis and fibrosis of haemopoietic tissue, shrinkage of glomeruli etc. after exposure to the textile effluents.

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P.G. Dept. of Botany, Bhagalpur Univ.,
Bhagalpur, India-812 007.

Physico-chemical and bacterial study of sewage water discharged into the river Ganga at Bhagalpur, India.

Environ. & Ecol., 3(2) : 138-142.

Study showed that chemical pollution caused by the drain was insignificant. High bacterial load of total coliforms ($420 \times 10^2/100$ ml) faecal streptococci ($9.6 \times 10^2/100$ ml) faecal coliforms ($108 \times 10^2/100$ ml) and E. coli ($70 \times 10^3/100$ ml) indicated bacterial pollution.

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TTC & KVK of CIFRI (ICAR), Kausalyagang, Bhubaneswar-2.

On the retardation of growth of abnormal fry, fingerling and table size specimens of Labeo rohita (Ham.) in village ponds. Intl. J. Acad. Ichthyol., 5(1&2) : 131-137.

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Fish Research Lab., Dept. of Zoology, Bihar Univ., Muzaffarpur.

Development of the air breathing habit among teleosts.

Ad. Bios., 2(1) : 77-84.

The air breathing teleosts are wholly aquatic breathers in the early phase of their larval life but change to a bimodal breathing habit around the 20th day after hatching.

... 21 ref.

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P.G. Dept. of Zoology & Botany, Bhagalpur Univ., Bhagalpur-812 007, Bihar, India.

Zooplankton density in relation to physico-chemical factors during diel cycle of river Ganga at Bhagalpur, Bihar.

Environ. & Ecol., 3(2) : 231-234.

The zooplankton were found in maximum number at 9.00 hrs and minimum at 12.00 hrs. In all eight rotifers, two cladocerans and three copepods were collected during 24 hrs time. The narrow fluctuation was observed in physico-chemical factors except for CO_3 and free CO_2 . The CO_3 was present during day while free CO_2 was encountered during night.

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Fish Ecology Research Lab., Dept. of Zoology, Garhwal Univ., Srinagar-246 174. Morphological abnormalities in two hill-stream fishes, Puntius chilinoides (McCland), and Schizothorax plagiostomus (Heckel) from Garhwal Himalaya. Intl. J. Acad. Ichthyol., 2(2) : 61-63. ... 11 ref.

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Dept. of Zoology, Garhwal Univ., Srinagar-Garhwal, Uttar Pradesh-246 174. Olfactory organs of the golden mahseer, Tor putitora (Ham.) from Garhwal Himalaya. Indian J. Anim. Sci., 56(1) : 42-46.

The cup-shaped olfactory rosette consisted of various olfactory lamellae which increased in number with the age and size of the fish.

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Zoology Dept., Burdwan Univ., Burdwan-713-104, India.

Detection, localization and probable functions of some phosphatases in the maturation phase of testes in Labeo rohita (Ham.). Intl. J. Acad. Ichthyol., 2(2) : 47-53

Distribution, localisation and probable functions of Alkaline phosphatase (AL Pase), Acid phosphatase (AC Pase) and Adenosine triphosphatase (ATPase) in various male germ line cells of the testes in L. rohita during maturation phase (March-May) have been discussed.

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Dept. of Zoology, Burdwan Univ., Burdwan-713 104, West Bengal, India.

On the occurrence of biflagellar spermatozoa in an Indian freshwater major carp, Labeo rohita (Ham.).

Intl. J. Acad. Ichthyol., 4(1) : 21-22.

About 5% of the total spermatozoa examined were found to be biflagellate. This is the first time the presence of biflagellar spermatozoa recorded from Indian teleosts.

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CIFRI, P.O. Netaji Subhash Sanitorium, Dist. Nadia, W.B.-741 251.

Age and growth of Plotosus canius Ham. from Hooghly-Matlah estuary.

Indian J. Anim. Sci., 56(1) : 116-126.

The annual nature of the vertebral rings and the observed isometric growth between vertebral centrum radius and total length of the fish established the validity of the vertebral method of age determination in the species.

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Dept. of Biosciences, Saurashtra Univ.,
Rajkot-360 005, India.

A comparative histochemical study of
alkaline phosphatase in the mesencephalon
of two freshwater teleost.

Intl. J. Acad. Ichthyol., 1(1) : 1-6.

A comparative study has been made on the
distribution of alkaline phosphatase in the mesence-
phalon, diencephalon and telencephalon of Ophiocephalus punctatus and Heteropneustes fossilis. The
localisation of alkaline phosphatase has also been
compared with the similar areas of other vertebrates.
The metabolic significance of enzyme in different
localities has been discussed.

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Dept. of Zoology, Punjab Univ., Chandigarh.
LDH isozymes in fishes.

Pb. Fish. Bull., 10(1) : 12-16.

The activities of Lactate dehydro-
genase in fishes have been discussed.

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CMFRI, Cochin-682 018.

Feeding biology of the scad Decapterus dayi
wakiya.

J. mar. biol. Ass. India, 21(1&2) : 97-102.

This is a pelagic carnivore. Small ones
feed mostly on crustaceans while larger ones are
piscivorous. Feeding was observed to be active in
pre and post-monsoon months while poor during monsoon.
Introduction of light fishing for the scad is reco-
mmended based on the food preference and feeding
behaviour.

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Central Marine Fisheries Research Inst.,
Cochin-682 018.

Observations on some aspects of biology of
the Croakers Johnius (Johnieops) dussumieri
Carutta Bloch. from Kakinada.

J. mar. biol. Ass. India, 21(1&2) ; 77-85.

Johnius dussumieri spawns during March-
August period; attains maturity at the size of 110
mm. The length-weight relationship equation is low
 $W = -4.84511 + 2.96347 \log L$. J. carutta attains
maturity at the size of 155 mm. This is a fraction-
nal spawner releasing ova in two batches. The season
extends from January-June. The length-weight relation-
ship is $\log W = -5.43389 + 3.23343 \log L$.

... 11 ref.

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(1980).

Dept. of Zoology, K.N. Govt. Post Graduate
College, Gyanpur-221 304, India.

Morphological and histochemical studies of
pineal organ in Wallago attu.

Intl. J. Acad. Ichthyol., 1(1) : 31-34.

The pineal organ of W. attu is hollow and
consists of pineal stalk, pineal thalamus and coni-
cal elongated pineal sac. Cell bodies like Alfa and
Beta (CAH), Acidophil & colloids (EB-AB), AB & D(A),
Gamma, Beta, chromophobic (WE) and AF positive etc.
have also been observed in pineal paranchyma which
suggests endocrine role.

... 25 ref.

164. Sultan, R.¹ & T.A. Qureshi² (1981).

1. PG Dept. of Zoology, Saifia College, Bhopal.

2. Technical Inst. of Agriculture, Dept. of Animal Production, Eski-kd-ek, Arbil, IRAQ.

Studies on the adrenal gland of some Indian teleosts.

Intl. J. Acad. Ichthyol., 2(1) : 27-32.

Studied the histoarchitecture of the adrenal gland of Tor tor, Heteropneustes fossilis and Platycephalus scaber. Internal tissue was present symetrically in both the head kidney of all the fishes.

... 21 ref.

165. Thomas, M.M. (1979).

CMFRI, Cochin-682 018.

On a collection of deep sea decapod crustaceans from the Gulf of Mannar.

J. mar. biol. Ass. India, 21(1&2) : 41-44.

Seven decapod crustaceans belonging to Penaeidea (4 species), Caridea (2 species) and Astacidea (1 species) were reported for the first time from Gulf of Mannar.

... 14 ref.

166. Venkataramani, V.K. & George John (1979).

Centre of Advanced Study in Marine Biology, Annamalai Univ., Parangipettai-608 502, Tamil Nadu.

Biochemical composition of frozen and dried carangid fishes.

J. mar. biol. Ass. India, 21(1&2) : 86-90.

Compared to all other species Selaroides leptolepis got more fat content and more protein in Atule mate. Level of protein and fat contents in fresh, frozen and sundried specimens have been studied and their nutritive values are compared.

... 26 ref.

167. Venkataramani, V.K.¹ & R. Natarajan² (1984).

1. Fisheries College, Tamil Nadu Agricultural Univ., Tuticorin-628 008.

2. Centre of Advanced Study in Marine Biology, Portonovo-608 502.

An application of electrophoretic analysis of muscle myogen and eye lens protein to the taxonomic studies in Carangids of Portonovo coast (Family, carangidae). Intl. J. Acad. Ichthyol., 5(1&2) : 61-66.

According to the number of protein fractions and their 'Rm' values the systematic studies were conducted. The presence or absence of certain fractions in each species indicates that each species is distinct from each other.

... 31 ref.

168. Venkataramanujam, K. & V.K. Venkataramani (1984).

Fisheries College, Tamil Nadu Agricultural Univ., Tuticorin-628 008.

The reproductive biology of Ambassis commersoni Cuv. and Val. (Pisces : perciformes) along the Portonovo coast.

Intl. J. Acad. Ichthyol., 5(1&2) : 103-111.

The species has a prolonged breeding season with two peaks one in March to May and the other in August to September.

... 13 ref.

169. Verma, S.R., I.P. Tonk & R.C. Dalela (1980).

Pollution Relevant Research Lab., DAV College, Muzaffarnagar-251 001, India.

Effect of thiotox and malathion and their combination on the body composition of

Saccobranchus fossilis and Mystus vittatus.

Intl. J. Acad. Ichthyol., 1(1) : 35-43.

It is found that gonado-somatic index, hepato-somatic index and condition factor increased after exposure. The water and lipid contents in the ovary, liver and kidney decreased. However, in blood the water and in liver the lipid contents were found to be increased in both the fishes.

170. Victor, B. & R. Sarojini² (1986).

1. Dept. of Zoology, St. Xavier's College, Palayamkottai-627 002, India.

2. Dept. of Zoology, Marathwada Univ., Aurangabad-431 004, India.

Toxicity of an organophosphorous insecticide to the ovaries of the atyid prawn, Caridina rajadhari (Bouvier).

J. Environ. Biol., 7(1) : 47-50.

10-day organophosphorous (OP) exposure caused ooplasmic vacuolation and sudden atresia of mature oocytes. Mature oocytes displayed severe necrotic changes. The oototoxicity is evident from the observed histopathological effects.

... 7 ref.

171. Vidyavati (1985).

Hydrobiology Lab., Dept. of Botany, Kakatiya Univ., Warangal-506 009, India.

Environmental control of cell morphology in desmids.

Proc. Indian Acad. Sci. (Plant Sci.), 95(3) : 193-198.

When the conditions such as temperature and light were altered, there was not only an increase in the abnormal forms but the number of the adherent cells were also more. Morphological variations under different cultural conditions have been studied.

... 36 ref.

172. Vijayakumaran, M. (1979).

CMFRI, Madras-600 105.

Chemical composition and caloric content of Ambassis gymnocephalus.

J. mar. biol. Ass. India, 21(1&2) : 182-184.

The increase in protein, lipid, and carbohydrate content with growth, in both males and females is interlinked with the maturity of gonads. Spent specimens showed marked depletion in protein and lipid.

... 9 ref.

173. Vijayakumaran, M. (1979).

CMFRI, Madras-600 105.

Food intake and conversion in Ambassis gymnocephalus.

J. mar. biol. Ass. India, 21(1&2) : 191-193.

Duration of the experiments varied from 15-21 days. Flesh of the prawn Metapenaeus dobsoni was used as feed. The absorption efficiencies are more than 96% and conversion efficiencies vary between 20.57 and 27.73% in different weight groups of fish. The conversion efficiency of this species was found to be lower than that of young ones of other species which grow to big size.

... 7 ref.

174. Vijayaraghavan, Shantha & J.V. Ramana Rao (1984).

Dept. of Zoology, Osmania Univ., Hyderabad-500 007.

Some observations on the biochemical aspects of nutritional stress-carbohydrate loading in a carnivorous fish Anabas scandens. (Cuvier)

Intl. J. Acad. Ichthyol., 5(1&2) : 159-163.

The fish was fed with protein free, carbohydrate (65%) rich diet for 8 weeks and periodic changes in body wt. were noted. The tissue levels of metabolites viz., glycogen, and protein and the comparative activity levels of the enzymes ALAT, AAT and GDH were estimated in liver, muscle, gill and kidney.

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